

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A bearing comprising:
an outer shell;
a bearing pad concentrically disposed within said outer shell; and
a wave spring between said outer shell and said bearing pad, said
5 spring providing a resilient force through said bearing pad onto a shaft when
said shaft is installed in said bearing.
2. (original) The bearing according to claim 1, further comprising
an elastomeric base material interposed between said outer shell and said
bearing pad.
3. (currently amended) The bearing according to claim 1,
wherein said wave spring is a helically wound ~~wave~~ spring.
4. (original) The bearing according to claim 1, wherein said
bearing pad includes from about 6 to about 20 individual pads.
5. (original) The bearing according to claim 4, wherein said
bearing pad includes about 12 individual interlinked pads.
6. (original) The bearing according to claim 5, further comprising
a plurality of gaps interposed between each of said individual pads, said gaps
allowing for size and shape variations of said shaft.

7. (original) The bearing according to claim 2,—_wherein said elastomeric base material and said spring provide about 4,000 to about 5,000 pounds/inch radial spring rate as measured by the resiliency of said spring and said elastomeric base material to movement by said shaft.

8. (currently amended) The bearing according to claim 2,—1, wherein said bearing provides a maximum linear resistance to axial motion of about 1 pound with a 20 pound radial load on said bearing.

9. (original) The bearing according to claim 8, wherein said maximum linear resistance to axial motion is about 5 pounds throughout a temperature range from about -65 to about 160 degrees F.

10. (currently amended) The bearing according to claim 1, wherein said bearing pad comprises a self-lubricating, polymer composite.

11. (original) The bearing according to claim 1, further comprising a lip molded onto said outer shell, said lip providing a wiping action on said shaft during movement of said bearing along said shaft, thereby providing a cleaning mechanism.

12. (currently amended) A linear bearing comprising:
an outer shell;
a bearing pad concentrically disposed within said outer shell;
a spring between said outer shell and said bearing pad, said
5 spring providing a resilient force through said bearing pad onto a shaft when
said shaft is installed in said bearing; and
an elastomeric base material interposed between said outer shell and said bearing pad.

13. (canceled)

14. (currently amended) The bearing according to claim ~~13~~, 12, wherein said spring is a helically wound wave spring.

15. (original) The bearing according to claim 12, wherein said bearing pad includes from about 6 to about 20 individual pads.

16. (original) The bearing according to claim 15, wherein said bearing pad includes about 12 individual pads.

17. (original) The bearing according to claim 15, further comprising a plurality of gaps interposed between each of said individual pads, said gaps allowing for size and shape variations of said shaft.

18. (original) The bearing according to claim 12, wherein said bearing pad comprises a self-lubricating polymer.

19. (original) The bearing according to claim 12, further comprising a lip molded onto said outer shell, said lip providing a wiping action on said shaft during movement of said bearing along said shaft, thereby providing a cleaning mechanism.

20. (original) A linear bearing comprising:
an outer shell;
an elastomeric base material concentrically disposed within said outer shell;

a self-lubricating bearing pad including from about 6 to about 20 individual pads;

a helical spring molded integrally within said elastomeric base material, said helical spring providing a resilient force through said bearing pad onto a shaft when said shaft is installed in said bearing; and

10 a plurality of gaps interposed between each of said individual pads, said gaps allowing for size and shape variations of said shaft.

21. (original) A linear bearing according to claim 20, wherein said bearing pad includes about 12 individual pads.

22. (original) A linear bearing according to claim 21, wherein:
said elastomeric base material and said spring provide about
4,000 to about 5,000 pounds/inch radial spring rate as measured by the
resiliency of said spring and said elastomeric base material to movement by
5 said shaft;

said bearing provides a maximum linear resistance to axial motion
of about 1 pound with a 20 pound radial load on said bearing; and

said maximum linear resistance to axial motion is about 5 pounds
throughout a temperature range from about -65 to about 160 degrees F.

23. (currently amended) A linear bearing for supporting a load
along a shaft, said linear bearing comprising:

an outer shell;

5 a bearing pad concentrically disposed within said outer shell, said
bearing pad including from about 6 to about 20 individual pads, each of said
individual pads comprising a self-lubricating polymer;

a helical-wave spring between said outer shell and said bearing
pad, said helical-wave spring providing a resilient force through said bearing
pad onto a shaft when said shaft is installed in said bearing;

10 an elastomeric base material interposed between said outer shell
and said bearing pad; and

a plurality of gaps interposed between each of said individual pads, said gaps allowing for size and shape variations of said; wherein

15 said elastomeric base material and said wave spring provide about 4,000 to about 5,000 pounds/inch radial spring rate as measured by the resiliency of said wave spring and said elastomeric base material to movement by said shaft;

 said bearing provides a maximum linear resistance to axial motion of about 1 pound with a 20 pound radial load on said bearing; and

20 said maximum linear resistance to axial motion is about 5 pounds throughout a temperature range from about -65 to about 160 degrees F.

24. (original) The linear bearing according to claim 23, wherein said bearing pad comprises about 12 individual pads.

25. (currently amended) A method for moving a load on a shaft through a bearing, comprising:

 forming a tubular-shaped outer shell of a linear bearing;

5 concentrically disposing a self-lubricating bearing pad within said outer shell;

 installing said linear bearing on said shaft;

 providing a resilient force exerted by a device selected from a group consisting of a helically wound wave spring and a combination of a second spring and an elastomeric base material, through said bearing pad onto
10 said shaft;

 attaching a load to said shaft; and

 moving said linear bearing relative to said shaft, thereby moving said load with said shaft within said linear bearing.

26. (canceled)

27. (currently amended) The method according to claim ~~26~~, 25, wherein ~~said resilient force is provided with both said spring and said elastomeric base material~~ the second spring is the helically wound wave spring.

28. (original) The method of claim 27, further comprising:
providing about 4,000 to about 5,000 pounds/inch radial spring rate as measured by the resiliency of said spring and said elastomeric base material to movement by said shaft.

29. (original) The method according to claim 27, further comprising:
providing a maximum linear resistance to axial motion of about 1 pound when said load is about 20 pounds.

30. (original) The method according to claim 27, further comprising cleaning said shaft with a lip molded onto said outer shell, said lip providing a wiping action on said shaft during movement of said bearing along said shaft.

31. (original) A method for moving a ram air door with a ram door actuator having a nut tube mounted on a linear bearing, comprising:
forming a tubular-shaped outer shell of said linear bearing;
concentrically disposing a self-lubricating bearing pad within said
5 outer shell;
installing said linear bearing in a rigid housing;
providing a resilient force through said bearing pad onto said shaft, said resilient force provided by at least one of a spring and an elastomeric base material;

- 10 providing about 4,000 to about 5,000 pounds/inch radial spring
rate as measured by the resiliency of said spring and said elastomeric base
material to movement by said shaft;
 providing a maximum linear resistance to axial motion of about 1
pound when said load is about 20 pounds;
- 15 installing said nut tube in said linear bearing; and
 moving said nut tube relative to said linear bearing with said ram
door actuator, thereby moving said ram air door; and
 cleaning said nut tube with a lip molded onto said outer shell, said
lip providing a wiping action on said nut tube during movement of said nut tube
- 20 within said bearing.

32. (original) The method according to claim 31, wherein said
resilient force is provided with both said spring and said elastomeric base
material.

33. (new) The bearing according to claim 1, wherein said bearing pad
comprises a plurality of individual pads, each individual pad of said plurality
having an inside surface, an outside surface, and an edge, each individual pad
separated from an adjacent individual pad by a triangularly shaped gap
- 5 extending along the edges of the individual pad and the adjacent individual pad,
the triangularly shaped gap extending inwardly from the outer surfaces of the
individual pads to the inner surfaces of the individual pads, the outer surfaces of
the individual pads connected at an apex of the triangularly shaped gap.